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(54) Title: BGL6 BETA-GLUCOSIDASE AND NUCLEIC ACIDS ENCODING THE SAME

MGEWQEQQMMG	FDVEDVLSQL	SQNEKIALLS	GIDFWHTYPI	PKYNVPSVRL	50
TDGPNIGIRGT	KFFAGIPAAC	LPCGTALAST	WDKQLKKAG	KLLGDECIAK	100
GAHCWLGPTI	NTPRSPLGGR	GFESFSEDPY	LSGILAASMI	LGCESTGVIS	150
AVKHFVANDQ	EHERRAVDCL	ITQRALREVY	LRPFQIVARD	ARPGALMTSY	200
NKVNGKHVAD	SAEFLQGILR	TEWNWDPLIV	SDWYGTYTTI	DAIKAGLDLE	250
MPGVSRYRGK	YIESALQARL	LKQSTIDERA	RRVRLRFAQKA	SHLKVSEVEQ	300
GRDFPEDRVL	NRQICGSSIV	LLKNENSILP	LPKSVKKVAL	VGSHVRLPAI	350
SGGGSASLVP	YYAISLYDAV	SEVLAGATIT	HEVGAYAHQM	LPVIDAMISN	400
AVIHFYNDPI	DVKDRKLLGS	ENVSSTSFQL	MDYNNIPTLN	KAMFWGTLVG	450
EFIPTATGIW	EFGLSVFGTA	DLYIDNELVI	ENTTHQTRGT	AFFGKGTEK	500
VATRRMVAGS	TYKLRLEFGS	ANTTKMETTG	VVNFGGGAVH	LGACLKVDPQ	550
EMIARAVKAA	ADADYTIICT	GLSGEWESEG	FDRPHMDLPP	GVDTMISQVL	600
DAAPNAVNN	QSGTPVMSW	AHKAKAIVQA	WYGGNETGHG	ISDVLFGNVN	650
PSGKLSLSWP	VDVKHNPAYL	NYASVGGRVL	YGEDVYVGYK	FYDKTEREVL	700
FPGFHGLSYA	TFKLKDSTVR	TVPETFHPDQ	PTVAIVKIKN	TSSVPGAQVL	750
QLYISAPNSP	THRPVKELHG	FEKVYLEAGE	EKEVQIPIDQ	YATSFWDEIE	800
SMWKSERGIY	DVLVGFSSQE	ISGKGKLIVP	ETRFWMGL		838

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(57) Abstract: The present invention provides a novel  $\beta$ -glucosidase nucleic acid sequence, designated *bgl6*, and the corresponding BGL6 amino acid sequence. The invention also provides expression vectors and host cells comprising a nucleic acid sequence encoding BGL6, recombinant BGL6 proteins and methods for producing the same.